

CLAIMS

1. Cargo deck to receive loads in the cargo compartment of an aircraft, characterized in that the cargo deck is composed of a plurality of floor modules (20), which are fixed within the cargo compartment (9) to form the cargo deck, such that attached to the outer skin (12) are longitudinal beams (35) on which the floor modules (20) can be mounted.
- 10 2. Cargo deck according to Claim 1, characterized in that ribs (11) are fixed to the outer skin (12), and the longitudinal beams (35) are fixed to these ribs.
- 15 3. Cargo deck according to Claim 1 or 2, characterized in that the longitudinal beams (35) are made of a material, the thermal expansion coefficient of which corresponds substantially to that of the outer skin (12).
- 20 4. Cargo deck according to one of the preceding claims, characterized in that the longitudinal beams (35) and/or ribs (11) comprise bores, rapid-closure elements or similar fixation devices (36, 36') for attachment of the floor modules (20).
- 25 5. Cargo deck according to one of the preceding claims, characterized in that the floor modules (20) are attached to the longitudinal beams (35) in such a way that substantially no forces acting in a longitudinal direction of the aircraft can be transferred from the floor modules (20) into the longitudinal beams (35).
- 30 6. Cargo deck according to one of the preceding claims, characterized in that a pair of longitudinal beams

(35) is provided to be connected to the floor modules (20).

7. Cargo deck according to one of the preceding claims,
5 characterized in that the floor modules (20) comprise
transverse beams (30) for connecting the floor
modules (20) to the longitudinal beams (35).
8. Cargo deck according to Claim 6, characterized in
10 that the floor modules (20) comprise supporting feet
(31, 32) for connection to the ribs (11).
9. Cargo deck according to one of the preceding claims,
15 characterized in that the ribs (11) for fixation of
the modules (20) and/or the longitudinal beams (35)
comprise fixation elements that are attached either
to the ribs in a zone between the outer skin (12) and
an edge region of the ribs (11) that is directed into
the cargo compartment (9), or are attached without
20 bores to the edge region of the ribs.
10. Cargo deck according to one of the preceding claims,
characterized in that the modules (20) are decoupled
25 from one another with respect to forces acting in the
long direction of the aircraft.
11. Method of installing a cargo deck that consists of
30 floor modules in an aircraft that is composed of
multiple barrel-shaped fuselage sections of an outer
skin, comprising at least the steps
35 a) production of floor modules;
 b) production of longitudinal beams, including
 the provision of bores, rapid-closure elements or
 similar fixation devices for attaching the floor
 modules to the longitudinal beams;

c) fixation of sections of the longitudinal beams within the fuselage sections;

d) insertion of the floor modules into the fuselage sections, and attaching them to the longitudinal beams.

5 12. Method according to Claim 11, wherein the longitudinal beams have a length no greater than that of the fuselage module.

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13. Method according to one of the claims 11 or 12, wherein after the step d), in a step e) feet of transverse beams are fixed to ribs.

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14. Method according to one of the claims 11-13, wherein after the step e) wall and ceiling lining elements are pushed into the fuselage sections and fixed in position there.

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15. Method according to one of the claims 11-14, wherein after assembly of the fuselage sections, floor modules are loaded in through a cargo-compartment door, transported to their associated destination sites, and fixed in position there.

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16. Method according to one of the claims 11-15, wherein prior to the step d) the floor modules are provided with conductor sections for fluids or electrical current, or with channels through which leads can pass, or with similar installation devices, and the installation devices are connected to one another after the step c).

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17. Method according to Claim 13, wherein at least parts of floor panels, ball mats or similar deck sections

of the modules are fixed to the modules after the step e).